

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001628**Date Inspected:** 20-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China**CWI Name:** Le Feng**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower mockups 89m, 77m**Summary of Items Observed:****89m Mock up**

This Quality Assurance (QA) inspector arrived at ZPMC for observation at the tower shop for the 89m mock-up and witnessed ZPMC personnel removing temporary attachments used to aid the fit-up of corner stiffener plate Sa184 to skin plate B and C. The attachments were removed by oxygen acetylene cutting to within 4-6mm in height and then further removal was completed by grinding as to not cut into the base metal. This QA Inspector had witnessed ZPMC personnel drilling 26mm, 27mm, 32mm and 33mm holes for bolting of shear pin connectors at plate E. for Bolts 25mm, 26mm, 31mm and 32mm size bolts which is within the requirements of 1mm size hole larger than the specified bolt size. The work continued throughout the rest of this QA inspector shift. Later in the shift this QA Inspector observed ZPMC welding personnel Lei Lichao welding on the splice connection for corner stiffener plate Sa184 weld number MUB-Ma21 J/J-15 in the vertical (3G) position using the Flux Cored Arc Welding (FCAW) process under WPS-B-T-2233-U2a-F with welding parameters verified by this QA Inspector as follows; 217 amps, 25.5 volts, and travel speed of 116mm/min. This appeared to be with the requirements of the WPS stated. ZPMC QC personnel were observed as being onsite monitoring welding parameters and the progression of welding. ZPMC's QC Inspectors are QC/CWI-Xu Le Feng and QC Zhu Feng. The work above appeared to be within the general requirements of the contract documents.

77m mock up

This Quality Assurance (QA) inspector arrived at ZPMC for observation at the tower shop for the 89m mock-up and witnessed ZPMC personnel performing final finish grinding and minor repairs for low weld profiles at multiple locations at skin plate C. ZPMC was witnessed using WPS-345-SMAW-3G (3F0 Repair for these locations with an average parameter reading taken through periodic intervals as 185 amps, 26 volts, and travel speed of 98mm/min. Later in the shift ZPMC was observed as continuing with final pick-up at skin C. This QA

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Inspector spoke with ZPMC QC inspector in regards to the estimated time for completion of the pick-up on skin C and is was relayed that it would take a few days for all the pick-up and grinding to be finished and then proceed with the Magnetic Particle inspection. The work above appeared to progressing within the general requirements of the contract documents. See digital photos below for drilling of shear connection plate.



Summary of Conversations:

As noted in the contents above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Riley, Ken	Quality Assurance Inspector
Reviewed By:	Cochran, Jim	QA Reviewer
